

What is claimed is:

1. A magnetic thin film,  
comprising:  
a base layer being made of FeCo/NiFe; and  
a plated layer being formed on said base layer, said plated layer being made of FeCo.
2. The magnetic thin film according to claim 1,  
wherein a crystal structure of said plated layer has X-ray diffraction peaks of bcc (110), bcc (200) and bcc (220), and  
ratio of diffracted intensity of bcc (110) and bcc (200) is  $I_{110}/I_{200} < 0.8$ .
3. The magnetic thin film according to claim 1,  
wherein a composition of said plated layer is indicated as  $\text{Fe}_x\text{Co}_{1-x}$  ( $50 \leq x \leq 80$  wt%),  
saturation magnetic flux density ( $B_s$ ) is  $B_s \geq 2.25\text{T}$ , and  
a coercive force ( $H_c$ ) in a direction of a hard axis is  $H_c \leq 600$  A/m.
4. The magnetic thin film according to claim 1,  
wherein a composition of said plated layer is indicated as  $\text{Fe}_x\text{Co}_{1-x}$  ( $65 \leq x \leq 75$  wt%),  
saturation magnetic flux density is  $B_s \geq 2.3\text{T}$ , and  
a coercive force in a direction of a hard axis is  $H_c \leq 400$  A/m.
5. The magnetic thin film according to claim 1,  
wherein content of Ni in the NiFe part of said base layer is  $45 \leq \text{Ni} \leq 85$  wt%, and  
the NiFe part has a fcc structure.

6. The magnetic thin film according to claim 1,  
wherein total thickness of said base layer is 100 nm or more, and  
thickness of the NiFe part of said base layer is 10 nm or more.
7. A method of manufacturing the magnetic thin film of claim 3,  
wherein said plated layer is formed by pulse plating.
8. A method of manufacturing the magnetic thin film of claim 4,  
wherein said plated layer is formed by pulse plating.
9. A method of manufacturing the magnetic thin film of claim 3,  
wherein said plated layer is plated in a plating solution including an  
organic additive, which includes a structure of  $[=C-SO_2-][-C-N-]$ .
10. A method of manufacturing the magnetic thin film of claim 4,  
wherein said plated layer is plated in a plating solution including an  
organic additive, which includes a structure of  $[=C-SO_2-][-C=N-]$ .
11. The method according to claim 9,  
wherein said plating solution further includes an electric conductive  
agent whose cation is an alkali metal.
12. The method according to claim 10,  
wherein said plating solution further includes an electric conductive  
agent whose cation is an alkali metal.
13. A magnetic head of a magnetic disk drive unit,  
comprising:  
an upper magnetic pole;

a lower magnetic pole;  
a write-gap being formed between said upper magnetic pole and said lower magnetic pole; and  
magnetic films being provided to parts of said upper magnetic pole and said lower magnetic pole, which are located at peripheries of said write-gap, wherein each of said magnetic films comprises:  
a base layer being made of FeCo/NiFe; and  
a plated layer being formed on said base layer, said plated layer being made of FeCo.

14. A magnetic thin film,  
comprising:  
a plated layer being made of FeCoRu,  
wherein composition of FeCoRu is indicated as  $\text{Fe}_x\text{Co}_y\text{Ru}_z (x+y+z=100\text{at}\%)$ ,  
composition ratio of Fe is  $50 \leq x \leq 80\text{at}\%$ ,  
composition ratio of Co is  $20 \leq y \leq 50\text{at}\%$ , and  
composition ratio of Ru is  $0.2 \leq z \leq 1\text{at}\%$ .
15. The magnetic thin film according to claim 14,  
wherein saturation magnetic flux density of said plated layer is  $B_s \geq 1.9\text{T}$ ,  
and  
a coercive force in a direction of a hard axis is  $H_c \leq 160 \text{ A/m}$ .
16. A magnetic head of a magnetic disk drive unit,  
comprising:  
magnetic poles,  
wherein a core member of at least one of said magnetic poles includes the thin magnetic film of claim 14.

17. A magnetic head of a magnetic disk drive unit,  
comprising:  
magnetic poles,  
wherein a core member of at least one of said magnetic poles includes  
the thin magnetic film of claim 15: